

PATENT
IBM Docket No. JP9-1999-0225

Listing of Claims (indicating status and amendments):

- a
- 1 1. (Currently amended) Wireless communication apparatus for facilitating communication
2 between computer terminals in a wireless computer network, comprising:
3 a power supply connecting section adapted for connection to a lighting power socket
4 intended for receiving a ceiling light;
5 communicating means, electrically connected to the power supply connecting section, for
6 receiving power, conducting wireless communication with the terminals and for communicating
7 via the lighting power socket over a power line with one or more other wireless communication
8 apparatus connected thereto; and
9 a lamp connecting section, opposite to and electrically connected to the power supply
10 connecting section, adapted as a power socket to receive a power supply plug for lighting and
11 power a ceiling lamp.
- 1 2. (Currently amended) The apparatus according to claim 1, wherein said power supply
2 connecting section includes a plug equivalent to the power supply plug for lighting connection
3 for a ceiling lamp intended for the power socket.
- 1 3. (Currently amended) The apparatus according to claim 1, wherein said lamp connecting
2 section includes a socket equivalent to the power socket for lighting.

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1 4. (Currently amended) The apparatus according to claim 1, said communicating means
2 comprising:

3 a power line communication control section, connected to the power supply connecting
4 section and conducting communication via ~~[[a]]~~ the power line with the other wireless apparatus
5 connected to the other power sockets for lighting;

6 an antenna for wireless communication;

7 a wireless communication control section, connected to the antenna for wireless
8 communication and conducting wireless communication with the wireless computer terminals;
9 and a communication control section, connected between the power line communication control
10 section and the wireless communication control section, and transferring data between the power
11 line communication control section and the wireless communication control section.

1 5. (Original) The apparatus according to claim 1, further comprising a unit power supply section
2 connected to said power supply connecting section and converting output voltage of the power
3 socket for lighting to a predetermined voltage to be supplied to said communicating means.

1 6. (Original) The apparatus according to claim 1, further comprising:

2 a connecting switch placed between the power supply connecting section and the lamp
3 connecting section; and

4 a connecting switch control section for switching the connecting switch ON or OFF based
5 on predetermined signals received by the communicating means.

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1 7. (Currently amended) A network system comprising:
2 a plurality of wireless terminals; and
3 a plurality of wireless communication apparatus for conducting wireless communication
4 with the wireless terminals,
5 wherein each of said wireless communication apparatus includes:
6 a power supply connecting section connected to a power socket for connecting a ceiling
7 lamp to a power line lighting; and
8 communicating means, connected to the power supply connecting section for conducting
9 communication over the power line between the wireless terminals and one or more of the
10 plurality of wireless communication apparatus; and
11 a lamp connecting section opposite and electrically connected to the power connecting section
12 having a power socket for receiving and powering a ceiling lamp.

1 8. (Currently amended) The system according to claim 7, wherein each of said wireless
2 communication apparatus further includes a lamp attached to the power socket connecting section;
3 electrically connected to the power supply connecting section and to which a power supply plug
4 for lighting is connected.

1 9. (Canceled) The system according to claim 7, wherein said power supply connecting section of
2 the wireless communication apparatus includes a plug equivalent to the power supply plug for
3 lighting.

1 10. (Canceled) The system according to claim 9, wherein said lamp connecting section of the
2 wireless communication apparatus includes a socket equivalent to the socket for lighting.

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1 11. (Currently amended) The system according to claim 7, wherein said communicating means of
2 the wireless communication apparatus comprises:

3 a power line communication control section, connected to the power supply connecting
4 section and conducting communication via a power line with the other wireless communication
5 apparatus connected to the other power sockets for lighting;

6 an antenna for wireless communication;

7 a wireless communication control section, connected to the antenna for wireless
8 communication and conducting wireless communication with the wireless terminals using the
9 antenna; and

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cont 10 a communication control section, connected between the power line communication
11 control section and the wireless communication control section, and transferring data between the
12 power line communication control section and the wireless communication control section.

1 12. (Currently amended) The system according to claim 7, wherein each of said wireless
2 communication apparatus includes the unit power supply section connected to the power supply
3 connecting section and converting the output voltage of the power socket ~~for lighting~~ to a
4 predetermined voltage to be supplied to the communicating means.

1 13. (Currently amended) The system according to claim 8, each of said wireless communication
2 main units further comprising:

3 a connecting switch placed between the power supply connecting section and the lamp
4 connecting section; and

5 a connecting switch control section for switching the connecting switch ON or OFF based
6 on predetermined signals received by the communicating means.

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1 14. (Canceled) A method of communicating between wireless terminals in a wireless network
2 comprising the steps of:

3 receiving information transmitted from a first wireless terminal, using a first wireless
4 communication apparatus connected to a first lighting power socket;
5 transmitting, through a power line, the information received by the first wireless
6 communication to a second wireless communication apparatus connected to a second lighting
7 power socket; and wireless transmitting the information received by the second wireless
8 communication apparatus to a second wireless terminal.

1 15. (Canceled) A wireless communication apparatus for facilitating communication in a wireless
2 network comprising:

3 a power supply connecting section adapted for connection to a lighting circuit;
4 communicating means, connected to the power supply connecting section, for conducting
5 wireless communication with at least one wireless terminal and for communicating with another
6 similar wireless communication apparatus by means of the lighting circuit.